

Highlights



Children
Paralyzed
by polio



Sewage
water
sampling

2021

- 05 cases of Wild Polio 1
 - 04 in Afghanistan
 - 01 in Pakistan

- 114 cases of cVDPV2
 - 43 in Afghanistan
 - 08 in Pakistan
 - 01 in Somalia
 - 62 in Yemen

- 03 cVDPV1 cases
 - All in Yemen

2021

- 66 samples Wild Polio 1
 - 01 in Afghanistan
 - 65 in Pakistan

- 94 samples cVDPV2
 - 40 in Afghanistan
 - 35 in Pakistan
 - 12 in Egypt
 - 01 in Iran
 - 01 in Somalia
 - 05 in Djibouti

2022

- 03 cases of Wild Polio 1
 - 01 in Afghanistan
 - 02 in Pakistan

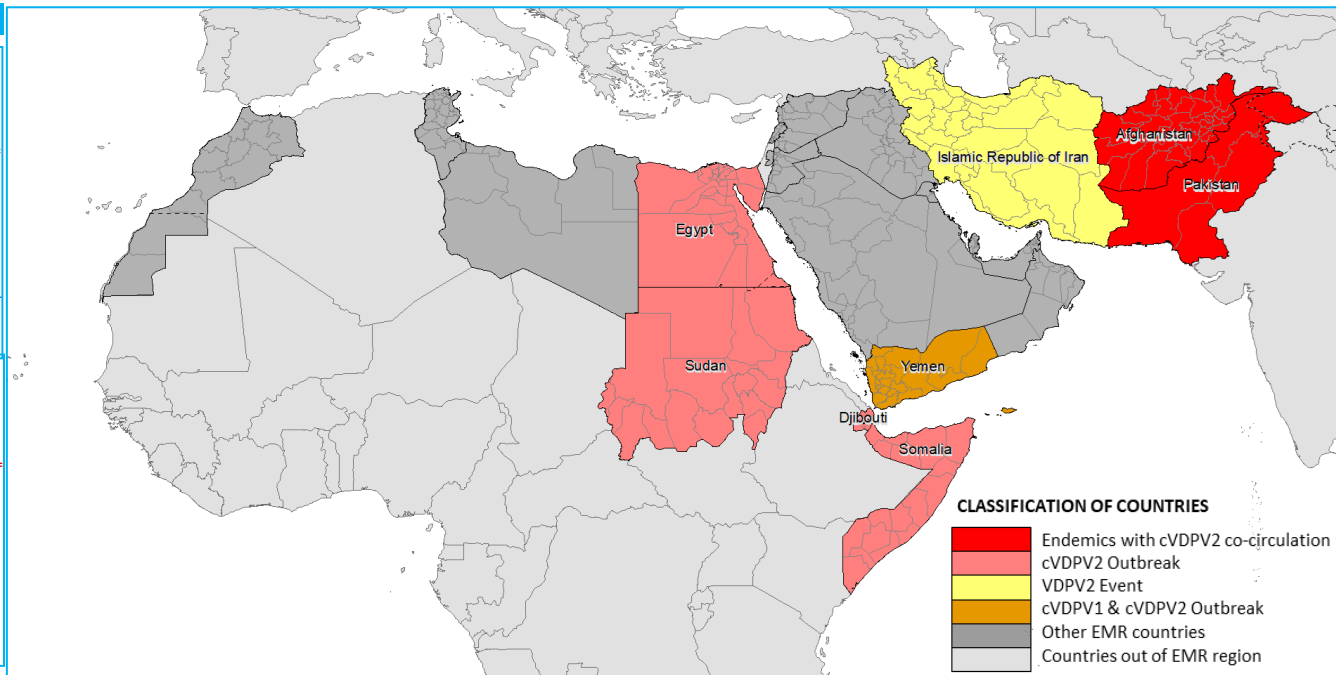
- 12 cases of cVDPV2
 - 02 in Somalia
 - 10 in Yemen

- Zero case of cVDPV1
(No cVDPV1 for the last ten months)

2022

- 01 sample Wild Polio 1
 - 01 in Pakistan

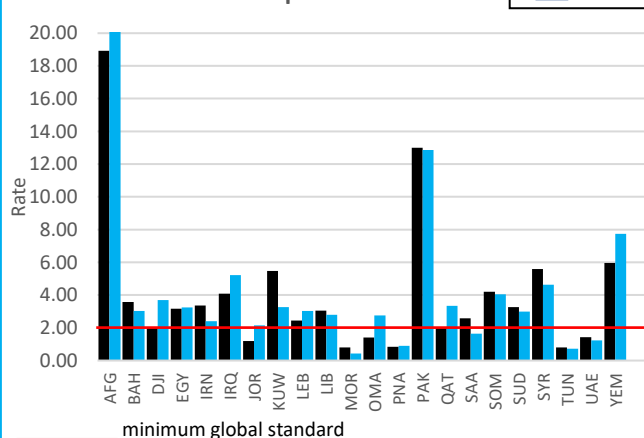
- 2 samples cVDPV2
 - 02 in Egypt



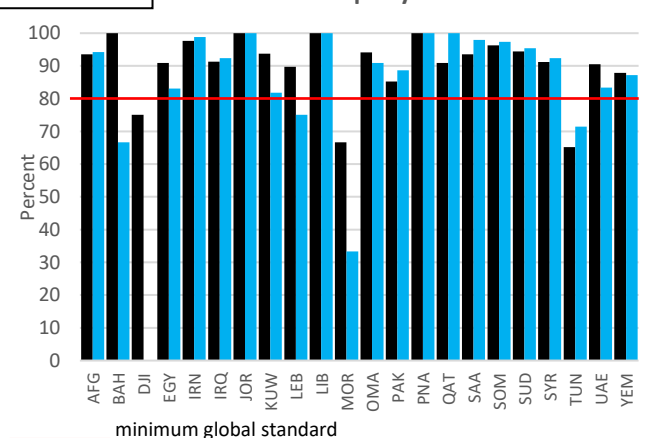
Highlights of the week

- Pakistan** reports a new WPV1 case from North Waziristan district of Khyber Pakhtunkhwa province. The case is a 24-month-old female child and has paralysis onset on 14 April 2022. Pakistan has reported 2 WPV1 cases in 2022 so far, from same district.
- Yemen:** five new cVDPV2 cases are reported with dates of onset between 5 to 14 January 2022. Three cases from north Yemen where cVDPV2 outbreak vaccination response has not been implemented.
- The first of the two **AFP Surveillance and Polio Laboratories Coordinators Intercountry Meetings** is taking place from 10-12 May 2022 in Muscat, Oman. Participating countries include: Bahrain, Egypt, Kuwait, Lebanon, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Tunisia and United Arab Emirates.

Non polio AFP rate

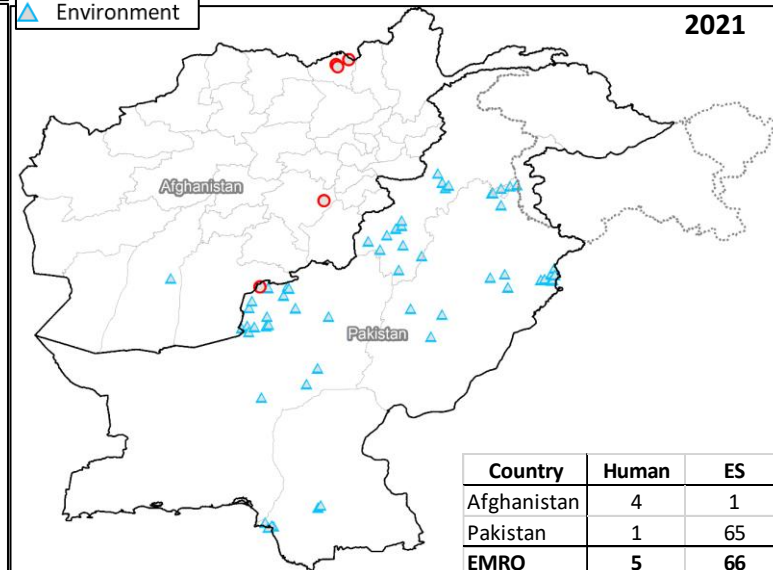
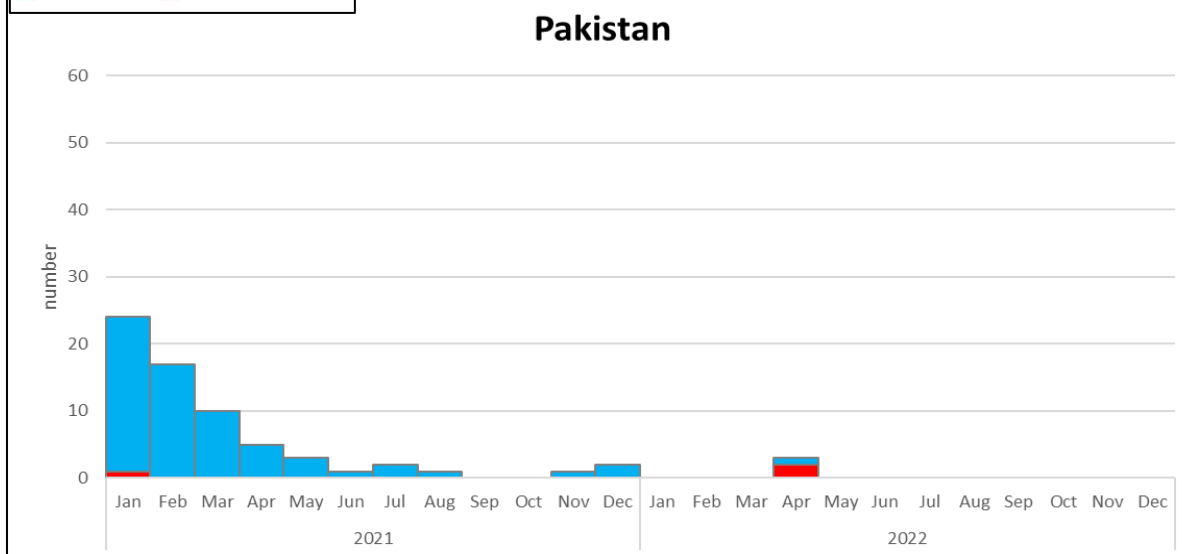
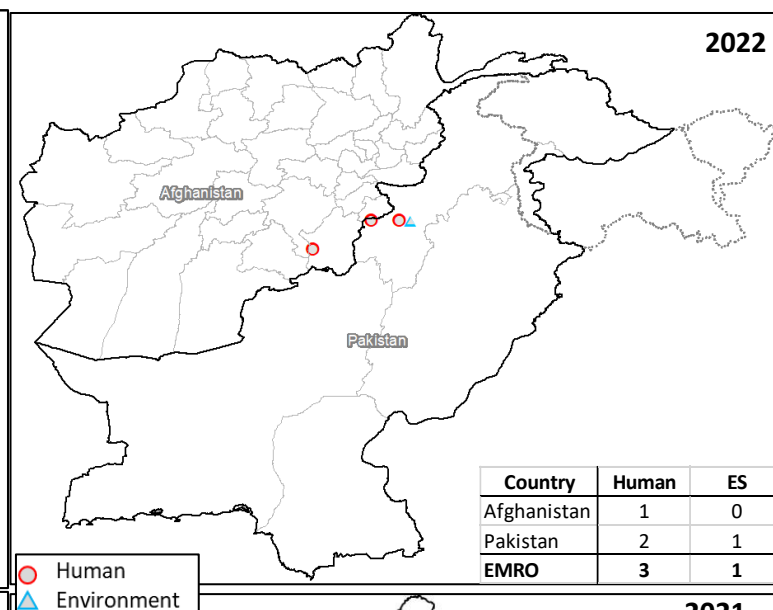
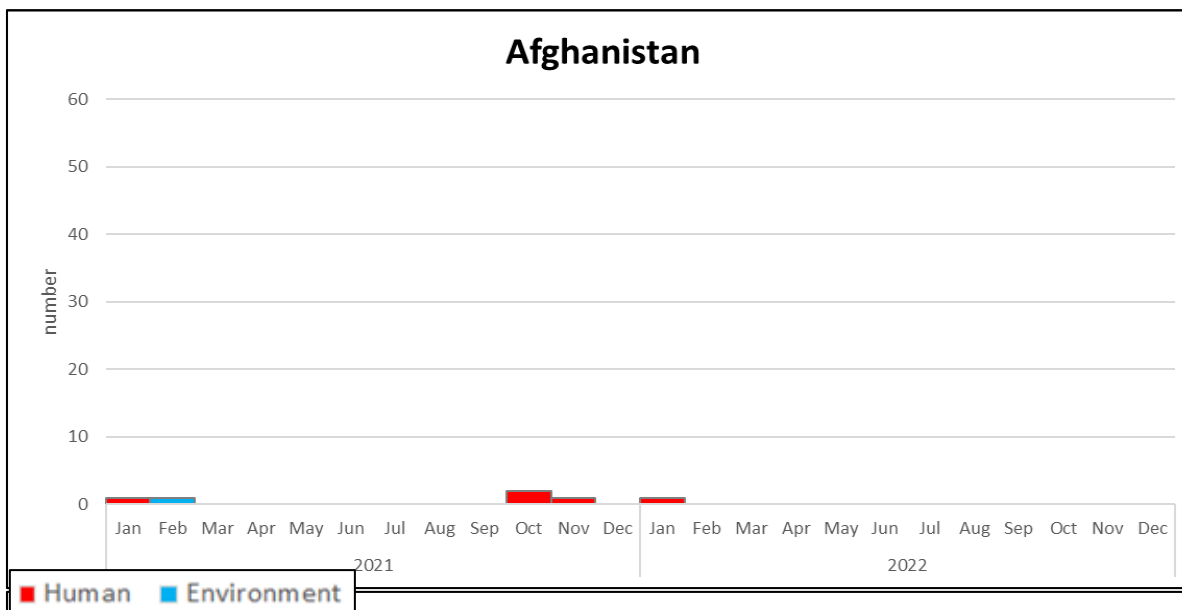


Stool adequacy



WPV1 Positive isolates from Afghanistan and Pakistan by source

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Virus isolation by country, last 12 months (May 01, 2021 to May 01, 2022)

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Source / Virus type	AFG	DJI	PAK	EGY	IRN	SOM	YEM	Total
Human (AFP only)	7		4	1		3	74	89
Wild	4		2					6
cVDPV2	3					3	70	76
aVDPV2			2	1			3	6
VDPV1								
VDPV2								
aVDPV1+cVDPV2							1	1
Environment	2	5	32	75	3	1		118
Wild			11					11
cVDPV2	1	5	4	7		1		18
aVDPV2	1		17		2			20
VDPV1				1				1
VDPV2				67	1			68
aVDPV1+cVDPV2								
Total	9	5	36	76	3	4	74	207

Five nOPV2-related Environmental Isolates from Egypt in 2022

Note: Viruses isolated from 'other' sources (example healthy children) are not included in this analysis; they are shown in page No. (8)

Confirmed Wild Polio 1 Cases by month of onset

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Country	Total year 2020	Total year 2021	1 May		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case
					2021						2022						
			2021	2022	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
Afghanistan	56	4	1	1	0	0	0	0	2	1	0	1		0			14-Jan-22
Bahrain	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Djibouti	0	0	0	0	0	0	0	0	0	0		0	0	0	0		
Egypt	0	0	0	0	0	0	0	0	0	0		0					
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0				
Iraq	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Jordan *****	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Kuwait	0	0	0	0	0	0	0	0	0	0	0	0	0				
Lebanon *****	0	0	0	0	0	0	0	0	0	0	0	0					
Libya	0	0	0	0	0	0	0	0	0	0	0	0	0				
Morocco	0	0	0	0	0	0		0	0	0							
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Pakistan	84	1	1	2	0	0	0	0	0	0	0	0			2		14-Apr-22
Palestine *****	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Qatar	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Saudi Arabia	0	0	0	0	0	0	0	0	0	0	0	0	0				
Somalia	0	0	0	0	0	0	0	0	0	0	0	0					
Sudan	0	0	0	0	0	0	0	0	0	0	0	0	0				
Syria *****	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Tunisia	0	0	0	0	0	0	0	0	0	0	0	0	0				
U.A.E	0	0	0	0	0	0	0	0	0	0	0			0			
Yemen	0	0	0	0	0	0	0	0	0	0	0	0					
EMR	140	5	2	3	0	0	0	0	2	1	0	1	0	0	2	0	14-Apr-22

**** UNRWA cases are included with those of country of residence

Investigation of AFP cases with paralysis onset in 2021 & 2022

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COUNTRY	2021									2022									Line List
	AFP cases	Case classification						Surveillance indicators		AFP cases	Case classification						Surveillance indicators		Date of latest
		Total Confirmed WPV1 Polio Cases	Polio Compatible	Discarded (non Polio AFP)	VDPV	Pending classification > 90 days from onset	Pending LAB classification > 90 days from onset	Annualized Non polio AFP rate	% with adequate specimens		Total Confirmed WPV1 Polio Cases	Polio Compatible	Discarded (non polio AFP)	VDPV	Pending classification > 90 days from onset	Pending LAB classification > 90 days from onset	Annualized Non polio AFP rate	% with adequate specimens	
AFGHANISTAN	4088	4	1	4038	45	0	0	18.92	93.52	1454	1	0	1193	1	10	0	20.27	94.22	28-Apr-22
BAHRAIN	11	0	0	11	0	0	0	3.58	100.00	3	0	0	1	0	0	0	3.02	66.67	28-Apr-22
DJIBOUTI	8	0	0	4	0	4	3	2.06	75.00	5	0	0	0	0	1	0	3.69	0.00	1-May-22
EGYPT	1251	0	0	1239	1	11	1	3.17	90.89	424	0	0	324	0	1	0	3.24	83.02	28-Apr-22
IRAN	681	0	0	680	1	0	0	3.36	97.65	161	0	0	148	0	0	0	2.40	98.76	30-Apr-22
IRAQ	709	0	0	709	0	0	0	4.08	91.26	301	0	0	249	0	12	0	5.23	92.36	30-Apr-22
JORDAN	47	0	0	47	0	0	0	1.19	100.00	29	0	0	23	0	0	0	2.16	100.00	28-Apr-22
KUWAIT	48	0	0	48	0	0	0	5.47	93.75	11	0	0	5	0	0	0	3.26	81.82	24-Apr-22
LEBANON	39	0	0	39	0	0	0	2.45	89.74	16	0	0	6	0	1	0	3.03	75.00	24-Apr-22
LIBYA	79	0	0	79	0	0	0	3.05	100.00	24	0	0	17	0	0	0	2.79	100.00	24-Apr-22
MOROCCO	78	0	0	78	0	0	0	0.80	66.67	15	0	0	0	0	4	2	0.44	33.33	22-Apr-22
OMAN	17	0	0	17	0	0	0	1.41	94.12	11	0	0	11	0	0	0	2.76	90.91	24-Apr-22
PAKISTAN	13110	1	4	13080	18	7	0	13.00	85.24	4300	2	0	3540	0	94	0	12.86	88.67	1-May-22
PALESTINE	16	0	0	16	0	0	0	0.85	100.00	6	0	0	0	0	2	0	0.90	100.00	17-Apr-22
QATAR	11	0	0	11	0	0	0	2.03	90.91	5	0	0	0	0	0	0	3.34	100.00	24-Apr-22
SAUDI ARABIA	217	0	0	217	0	0	0	2.59	93.55	48	0	0	18	0	0	0	1.65	97.92	24-Apr-22
SOMALIA	349	0	0	348	1	0	0	4.21	96.28	111	0	0	91	2	0	0	4.04	97.30	1-May-22
SUDAN	637	0	0	637	0	0	0	3.26	94.35	193	0	0	162	0	1	0	2.99	95.34	28-Apr-22
SYRIA	431	0	0	431	0	0	0	5.60	91.18	118	0	0	92	0	0	0	4.63	92.37	1-May-22
TUNISIA	23	0	0	23	0	0	0	0.81	65.22	7	0	0	5	0	0	0	0.73	71.43	29-Apr-22
U.A.E.	21	0	0	21	0	0	0	1.42	90.48	6	0	0	0	0	1	0	1.23	83.33	19-Apr-22
YEMEN	921	0	0	841	67	13	1	5.96	87.84	396	0	0	153	10	31	17	7.75	87.12	30-Apr-22
EMR POL	22792	5	5	22614	133	35	5	7.96	88.36	7644	3	0	6038	13	158	19	8.04	89.97	

* Confirmed polio cases refer to wild isolation from AFP cases or from contacts of negative index AFP cases

** Non-polio AFP per 100,000 children <15 years

*** Adequate here refers to two stool specimens collected at least 24 hours apart, with 14 days of paralysis onset and specimens received in the lab in 'Good Condition'

**** Includes all VDPV cases. Further details available in page (8)

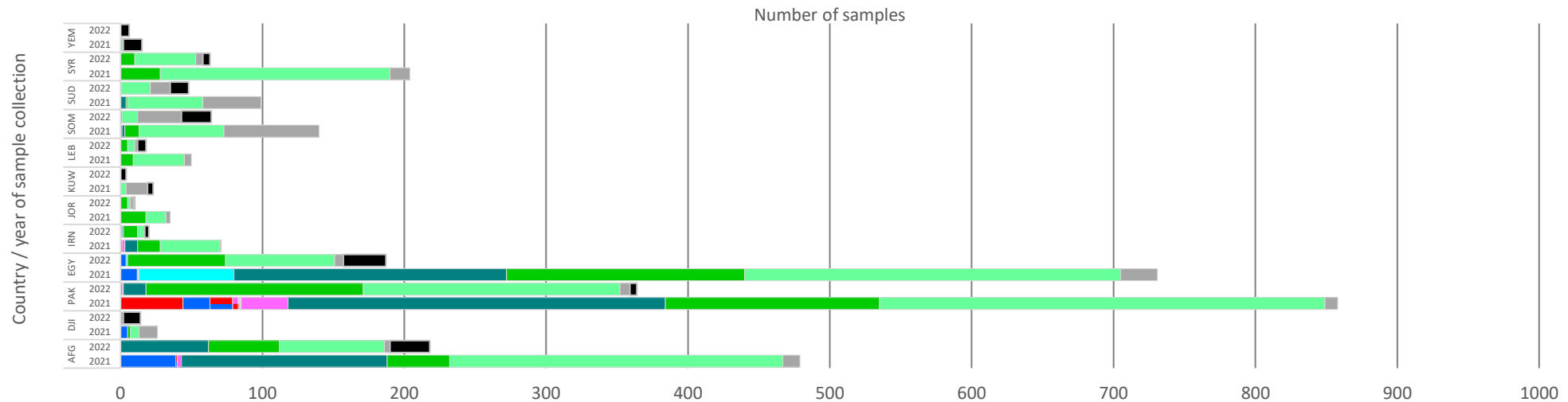
Laboratory investigation of AFP cases with paralysis onset in 2022

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Country	Polio laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results												Indicators				Latest report Date	
	ITD / Nucleotide Sequencing		Referred for ITD		NPEV only	Negative	Pending		Type 1			Type 2			Type 3			Discordant pending sequence	NPEV by PCR	Non-EV	Pending ITD	% specimens positive for NPEV*	% AFP cases with culture results within 14 days	% AFP cases with ITD results within 7 days		% AFP cases with ITD results within 45 days of onset**
	Sequencing performed by CDC and RIVM laboratories		L20B+	L20B+ / NPEV			received within last 14 days	received more than 14 days ago	Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin	VDPV									
Afghanistan	RRL Pakistan	1445	107	13	214	942	150		1	72			8			87					14%	95%	100%	99%	1-May-22	
Bahrain	NPL Oman / CDC	3				3															0%	100%		100%	28-Apr-22	
Djibouti	NPL Kenya / CDC	5						5																	1-May-22	
Egypt***	RRL Egypt	409	12	1	44	307	20	25		4						9			1	1		11%	98%	100%	100%	28-Apr-22
Iran	NPL Iran / CDC	199	2		2	168	27			1	1					2					1%	99%	100%	98%	30-Apr-22	
Iraq	NPL Iraq, RRL Egypt	311	1		22	259	26	3								2					8%	100%	50%	100%	30-Apr-22	
Jordan	NPL Jordan, RRL Egypt	29	1		5	17	6									1					22%	100%	1	100%	28-Apr-22	
Kuwait	RRL Kuwait / RIVM	7				6		1													0%	100%		100%	21-Apr-22	
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	12				12															0%	100%			23-Apr-22	
Libya	RRL Tunisia / RIVM	26				25	1														0%	100%		100%	29-Apr-22	
Morocco	NPL Morocco, RRL Tunisia	17				14	3														0%	100%		93%	29-Apr-22	
Oman	NPL Oman / CDC	13			2	11															13%	85%		100%	28-Apr-22	
Pakistan	RRL Pakistan	4262	159	21	653	2976	338	106	2	85			1			136					13%	94%	99%	97%	1-May-22	
Palestine & UNRWA		6				5		1													0%	0%		80%	17-Apr-22	
Qatar	NPL Oman / CDC	5	1			4				1											0%	80%	0	100%	28-Apr-22	
Saudi Arabia	NPL Saudi Arabia / CDC	56			1	50	1	4													2%	90%		100%	24-Apr-22	
Somalia	NPL Kenya / CDC	111	2		17	77	5	12					2								18%	8%		100%	1-May-22	
Sudan	NPL Sudan / RRL Egypt	194			38	131	19	6													22%	79%		100%	28-Apr-22	
Syria	NPL Syria / RRL Egypt	101	2		4	84	4	7													3%	99%			23-Apr-22	
Tunisia	RRL Tunisia	8				6	2														0%	100%		100%	29-Apr-22	
U.A.E	NPL Oman / CDC	6				6															0%	100%		83%	28-Apr-22	
Yemen	NPL Oman, NPL Kenya, RRL Egypt	315	56	1	23	134	101	1		2		46		5		4				4	11%	71%	35%	0%	30-Apr-22	
Total EMR 2022		7540	343	36	1025	5237	703	171	3	165	1	46	11	5		241			1	1	4	12%	93%	90%	95%	
Total EMR 2021		22110	1182	128	3870	16916	1	9	5	477	7	16	363	103		599	1	1	7	2	2	14%	97%	97%	93%	

Environmental Surveillance Isolation by Classification

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	AFG		DJI		PAK		EGY		IRN		JOR		KUW		LEB		SOM		SUD		SYR		YEM	
	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
Wild					44	1																		
cVDPV2	39		5		19		12	4	1								1							
Wild+cVDPV2	1				16																			
Wild+aVDPV2					4																			
Wild+aVDPV3					1																			
aVDPV1					1																			
aVDPV2	3				33	1			2															
aVDPV3																								
VDPV1							1																	
VDPV2							67	1		1														
SL2	145	62			266	16	192		9	1							2		4					
SL1/3	44	50	2		151	153	168	69	16	10	18	5			9	5	10	1	1		28	10	1	
Entero	235	74	6		314	181	265	77	42	5	14	2	4		36	5	60	11	53	21	162	43	1	
Negative	12	4	13	2	9	7	26	6	1		3	2	15		5	2	67	31	41	14	14	5		
Pending		28		12		5		30		3		1	4	4		6		21		13		5	13	6

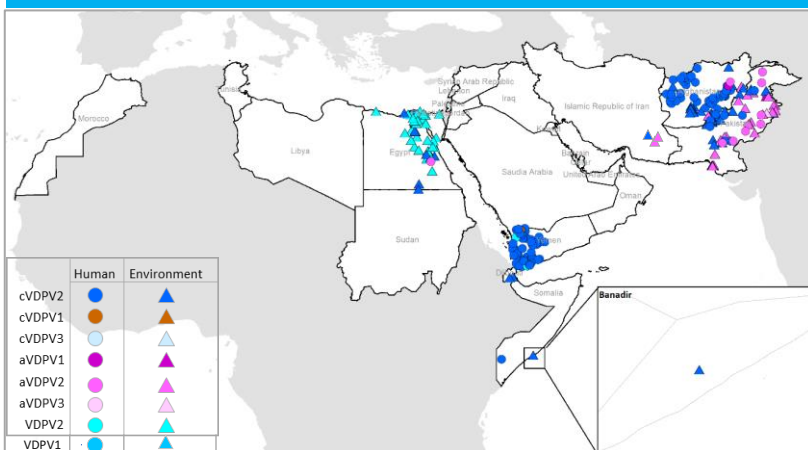
Five nOPV2-related Environmental Isolates from Egypt in 2022

For further details on Environmental Samples Results click: [Detail of environmental surveillance samples](#)

VDPVs isolations by Source and Country

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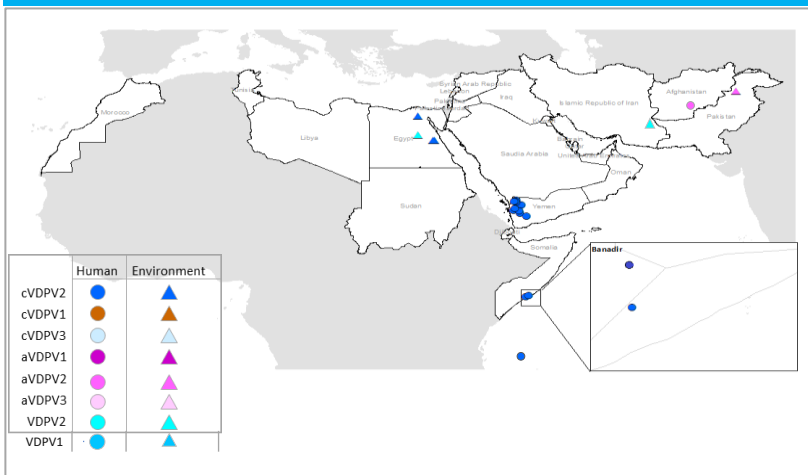
VDPV Isolates, EMR countries, 2021



VDPVs isolated from 2017-2022

VDPV Isolate type	EMR Country	Sources																										
		AFP cases(Human)						Contacts(Human)						Environment						Other Sources (Healthy Children)								
		2017	2018	2019	2020	2021	Most recent	2017	2018	2019	2020	2021	2022	Most recent	2017	2018	2019	2020	2021	2022	Most recent	2017	2018	2019	2020	2021	2022	Most recent
cVDPV2	Afghanistan				307	43	09-07-21											174	40		23-06-21							
	Djibouti																		5		28-12-21							
	Egypt																		12	2	09-03-22							
	Iran																	3	1		20-02-21							
	Pakistan			22	135	8	23-04-21										38	135	35		11-08-21							
	Somalia		6	3	14	1	2	18-02-22	3	1	11		3	22-02-22	2	19	5	26	1		23-05-21			1	5			
	Sudan				58			18-12-20			18			08-10-20				14			09-11-20				4			24-08-21
	Syria	74						21-09-17	63					12-09-17								4						20-08-17
Yemen					62	10	14-01-22					23	5	17-01-22														
cVDPV1	Yemen			1	31	3	27-03-21			2			10-07-19															
cVDPV3	Somalia		7				07-09-18	7					30-06-18		12					23-08-18								
aVDPV1	Afghanistan					1	22-02-21																					
	Egypt																	1			16-07-20							
	Pakistan																		1		10-02-21							
	Somalia				1		26-01-20																					
	Yemen					1	20-07-21																					
aVDPV2	Afghanistan			3	1	1	01-01-22			75	15	1	14-02-22					2	3		25-07-21							
	Egypt					1	30-05-21					1	14-06-21					1			21-09-21							
	Iran																		2		28-09-21							
	Pakistan				7	8	24-09-21			8	19	1	28-04-21	5		3	22	37		06-12-21								
	Somalia														2	1				03-02-19								
	Yemen										1		09-12-21															
aVDPV3	Afghanistan				1		23-06-20																					
	Egypt																	2			30-09-20							
	Pakistan																		1		05-04-21							
	Libya				1		15-01-20																					
VDPV1	Egypt																	1		11-07-21								
VDPV2	Egypt																	67	1		12-01-22							
	IRAN																			1	04-02-22							
	Pakistan																			1	15-02-22							
	Yemen					2	01-11-21																					

VDPV Isolates, EMR countries, 2022



Important links

EMR Polio Bulletin - Issue No. 1230, Week 17 (ending on 01/05/2022)

- [Global Polio Eradication Initiative](#)
- [IMST – Outbreak Response Dashboard](#)
- [nOPV2 Tracker](#)
- [Pol-MIS](#) (restricted to registered users)
- [Containment](#) (restricted to registered users)